4. The isolated solid tumor stem cell of claim 3, wherein the solid tumor stem cell does not express detectable levels of LINEAGE markers, wherein the LINEAGE markers comprise CD2, CD3, CD14, CD16, and CD64.

5. The isolated solid tumor stem cell of claim 1, wherein the solid tumor stem cell expresses the cell surface marker epithelial specific antigen (ESA).

7. The isolated solid tumor stem cell of claim 1, wherein the solid tumor is a sarcoma or an epithelial cancer.

8. The isolated solid tumor stem cell of claim 7, wherein the epithelial cancer is a breast cancer or an ovarian cancer.

15. The isolated solid tumor stem cell of claim 1, wherein the solid tumor stem cell is introduced into a host animal.

17. The isolated solid tumor stem cell of claim 192, wherein the mouse is an immunocompromised mouse.

23. An enriched population of solid tumor stem cells, wherein:
(a) the tumor cells are derived from a solid tumor;
(b) the solid tumor stem cells are tumorigenic; and
(c) the solid tumor stem cell population is enriched at least 2-fold relative to unfractionated tumor cells.

25. The enriched population of claim 23, wherein the solid tumor stem cells in the enriched population express the cell surface marker CD44.

26. The enriched population of claim 23, wherein solid tumor stem cells in the enriched population fail to express at least one LINEAGE marker selected from the group consisting of CD2, CD3, CD14, CD16, CD45, CD64, and CD140b.

37. The method of claim 32, wherein the solid tumor stem cell negative marker is a marker selected from the group consisting of CD2, CD3, CD10, CD14, CD16, CD31, CD45 CD64 and CD140b.

39. The method of claim 32, wherein steps (b) and (c) comprise:

(b) contacting the dissociated cells with a combination of reagents, wherein each reagent in the combination either selectively binds to either a solid tumor stem cell positive marker or negative marker and

(c) selecting cells that bind to reagents that selectively bind to the positive marker or that do not bind to reagents that selectively bind to the negative marker or a combination thereof, wherein the selected cells are enriched in tumor stem cells as compared with the population of unfractionated cells.

40. The method of claim 32, further comprising the step of:

(d) isolating the selected solid tumor stem cell.

Kindly add the following new claims:

184. The isolated solid tumor stem cell of claim 1, wherein the solid tumor stem cell expresses at least one marker selected from the group consisting of CD44, epithelial specific antigen (ESA), and B38.1.

185. The isolated solid tumor stem cell of claim 1, wherein the solid tumor stem cell expresses the cell surface marker B38.1.

186. The isolated solid tumor stem cell of claim 1, wherein the solid tumor stem cell expresses lower levels of the marker CD24 than the mean expression of CD24 by non-tumorigenic cancer cells derived from the solid tumor.

187. The isolated solid tumor stem cell of claim 8, wherein the LINEAGE markers further comprise CD10, CD31, and CD140b.

188. The method of claim 33, wherein the epithelial cancer is a breast cancer or an ovarian cancer.

189. The isolated solid tumor stem cell of claim 15, wherein the animal is an immunocompromised animal.

190. The isolated solid tumor stem cell of claim 15, wherein the animal is a mammal.

191. The isolated solid tumor stem cell of claim 190, wherein the mammal is an immunocompromised mammal.

192. The isolated solid tumor stem cell of claim 190, wherein the mammal is a mouse.

193. The isolated solid tumor stem cell of claim 17, wherein the immunocompromised mouse is selected from the group consisting of nude mouse, SCID mouse, NOD/SCID mouse, Beige/SCID mouse; and β2 microglobin deficient NOD/SCID mouse.

194. The enriched population of claim 24, wherein the epithelial cancer is a breast cancer or an ovarian cancer.

195. The enriched population of claim 23, wherein the solid tumor stem cells in the enriched population express at least one marker selected from the group consisting of CD44, epithelial specific antigen (ESA), and B38.1.